21. [(Amended)] A method of mitigating corrosion as in claim 19 wherein said cathodic polarization of said metal seed layer is performed by causing a dc cathodic current to flow between said metal seed layer and a counter electrode.

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22. [(Amended)] A method of mitigating corrosion as in Claim 21 wherein said dc cathodic current [is] has a current density in the range from approximately 0.1 milliamperes per square centimeter to approximately 5 milliamperes per square centimeter.

23. [(Amended)] A method of mitigating corrosion as in Claim [20] 19 wherein said cathodic polarization of said metal seed layer is performed by applying a net cathodic voltage to said metal seed layer with respect to a copper reference electrode in the electroplating solution prior to said metal layer contacting said electroplating solution.

25. [(Amended)] A method of electroplating a metal onto a surface comprising a field region and a plurality of recessed features, the surface having a metal seed layer, the method comprising:

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contacting said surface with an electroplating solution comprising metal ions and an additive under conditions wherein the metal seed layer is cathodically polarized with respect to the electroplating solution prior to or less than approximately 5 seconds following said contacting;

[a] contacting said substrate with an electroplating solution comprising metal ions and an additive;]

[b] ]applying a dc cathodic current through said surface, the dc cathodic current [being] having a first current density that is sufficiently small that depletion of metal ions and the additive is absent at both the field region and the recessed features, to create a substantially conformal thin conductive metal film on said surface;

[c] ]contacting said [surface] thin conductive metal film on said surface with said electroplating solution for a time sufficient for adsorption of said additive onto said [surface] thin conductive metal film;

[d] ]applying a dc cathodic current having [an initial] a second value of current density through said surface, the [initial] second value such that electroplating occurs preferentially on bottoms of recessed features having the least diffusion-accessibility; [and]

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[e) ]increasing said current density from said [initial] second value such that electroplating progresses to bottoms of features having higher diffusion-accessibility[.], until the aspect ratios of all of said recessed features are less than approximately 0.5; and

further increasing said current density to a third value providing a condition of conformal plating, filling said recessed features.

Please enter the following new claims.

--29. A method of electroplating as in Claim 25 wherein said metal ions comprise copper ions.

30. A method of electroplating as in Claim 29 wherein said conformal thin conductive metal film on said surface has a thickness of about 500 Angstroms or less.

31. A method of electroplating as in Claim 29 wherein said first current density is in the range from approximately 0.1 milliamperes per square centimeter to approximately 5 milliamperes per square centimeter.

32. A method of electroplating as in Claim 31 wherein cathodic current pulses are superimposed on said first current density.

33. A method of electroplating as in Claim 29 wherein said second value of current density is between about 0 and about 5 milliamperes per square centimeter and increasing said current density from said second value is increasing said current density over a period of between about 3 and about 60 seconds to a maximum current density of between about 4 and about 45 milliamperes per square centimeter.

34. A method of electroplating as in Claim 29 wherein said third value of current density is between about 15 and about 75 milliamperes per square centimeter.

35. A method of electroplating as in Claim 25 wherein said additive comprises at least one chemical species that suppresses electroplating when adsorbed on said surface.--

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